

REMARKS

Applicant appreciates the thorough examination of the current application as evidenced by the Office Action mailed December 21, 2006 ("the Action"). In view of the above amendments and the remarks that follow, Applicant submits that the application is in condition for allowance.

The Drawing Objections

The Action objects to the drawings as not providing adequate descriptive label information. It is noted that newly executed drawings according to national standards may not be required during the national phase if the drawings filed with the international application comply with PCT Rule 11. *See* M.P.E.P. §1825. Therefore, Applicant cannot be required to execute new drawings unless the drawings do not comply with PCT Rule 11. Applicant submits that the originally filed drawings comply with PCT Rule 11. However, in order to expedite prosecution, Applicant submits the enclosed new formal drawings for drawing sheets 1/8, 2/8 and 6/8.

Status of the Claims

Claim 1 has been written with a preamble as requested by the Examiner.

Following the terminology of the original claim 1, the term "metal port block" has been used to describe the new block used to provide test access which is inserted into the terminal blocks of the distribution frames. Various clarifying amendments have also been made.

Applicant submits that the above amendments address the objections to the claims on pages 2-3 of the Action and request that the objections be withdrawn.

Claim 18 has been added. Claim 18 is a method claim corresponding to 1, and therefore, support for claim 18 can be found, for example, in original claim 1.

Claim 19 has been added. Support for claim 19 can be found, for example, in original claims 1, 7 and 8, and on page 8, lines 6 to 17 and Figs. 10 and 11 as originally filed.

Claim 20 corresponds to original Claim 15 and depends from Claim 14.

The 102/103 Rejections

The present application relates to an xDSL connection architecture including a **vertical distribution frame** (page 6, line 7, page 7, lines 33, 34), an **intermediate distribution frame** (page 6, line 16, page 7, lines 29) and a **horizontal distribution frame** (page 7, lines 28, 29). As is well known to the skilled person and discussed in the prior art section of the present application such frames can be made up of terminal blocks. In the specification these are sometimes abbreviated to "vertical terminal block" etc. Accordingly in the claims reference is now made to "horizontal distribution frame, "vertical distribution frame" and "terminal block of the vertical distribution frame" etc.

In the conventional terminology the horizontal distribution frame is on the network side and the vertical distribution frame is on the subscriber side. This old terminology is still in common use today. It dates back to the days in which the wires were literally laid horizontally from the switch side and were arranged vertically where the cables came in from the subscribers.

Claims 1-5, 12-15 and 17 stand rejected in the Action under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,831,930 to Swam ("Swam"). Claims 7-11 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Swam in view of U.S. Patent Application Publication 2003/0002641 to Schmokel ("Schmokel").

In order to understand the disclosure of Swam more clearly, we refer to Fig. 12-11 of the book "ADSL & DSL Technology", by Goralski ("Goralski"). Goralski is also submitted herewith for consideration in an Information Disclosure Statement. Applicant submits that Goralski shows the same type of connection architecture as Figs. 1, 7, 8, 9 of Swam.

From Fig. 12-11 of Goralski, one can see that to connect the ADSL service three distribution frames having terminal blocks are associated with the main distribution frame ("MDF"). Thus, the speech signal coming from the voice switch (108 in Swam) arrives at the MDF at a first terminal block (in the horizontal distribution frame). The speech signal is transferred to a second terminal block (in an intermediate distribution frame) and from there to the splitter which is located away from the DSLAM and is connected thereto by a cable.

The splitter is connected to the vertical distribution frame for receipt of signals from the subscribers.

Swam in Fig. 9 shows a voice switch 108 connected to the MDF 102, which, as shown in Fig. 12-11 of Goralski, is the horizontal distribution frame. The MDF is connected to the splitter 104 via a low pass filter. The splitter is connected to a DSLM 106 via a blocking capacitor. An output of the splitter is connected to a bantam jack access panel 110 that has connections for a remote test access device 112. The other output of the splitter/DSLAM combination is connected to the MDF, which (as shown in Fig. 12-11 of Goralski) is the vertical distribution frame.

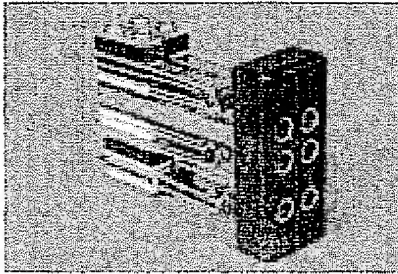
Noticeable is that the lines to/from the splitter/DSLAM combination are connected to the intermediate distribution frame and the vertical frame, respectively, in Swam.

This known arrangement of Swam differs from the claimed language first of all because, as recited in claim 1, the intermediate distribution frame is connected to both sides of the splitter/DSLAM combination. The cables are looped back to the intermediate distribution frame (second terminal block) rather than to the vertical distribution frame (third terminal block).

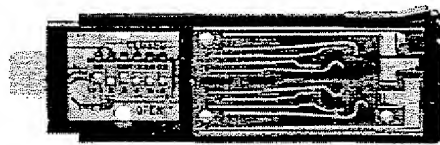
Comparing this with the claimed architecture of claim 1, Swam does not have an intermediate distribution frame ("IDF"). Even if the access panel 110 were considered as the IDF (it is said to be "IDF-like" in Fig. 9), the voice signal is not supplied to this access panel and looped back to itself as required for the intermediate distribution frame in claim 1. Hence, claim 1 is not anticipated by Swam.

The Action suggests that Swam does have an intermediate distribution frame; however, the Action assigns no reference number to identify any component of Swam as an intermediate distribution frame. Applicant can find no such frame in Swam. If the rejection is maintained, it is respectfully requested that the specific portions of Swam that allegedly disclose an intermediate distribution frame be pointed out.

The architecture shown in Fig. 9 of Swam is similar to that shown as prior art in Fig. 2 of the present application. Swam makes use of bantam jacks and cables. Thus Swam has to add in a special access panel using cables and connectors in addition to the existing equipment. Typical bantam jacks are illustrated below:

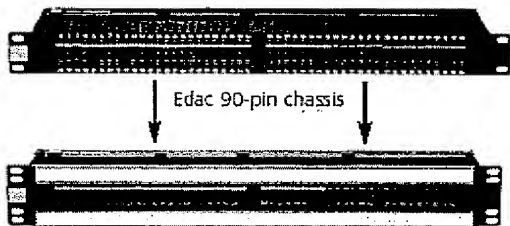


The above bantam jacks can be incorporated into rack equipment as shown below:



WECO Standard Jack

ADC's patented PIX technology maintains WECO platinum/gold plated crossbar contacts for superior self-cleaning action. Platinum/gold crossbars, high contact force and mechanical wiping action prevent noisy jacks due to high contact resistance, dust contamination, and environmental residue on non-crossbar type springs.



Edac 90-pin chassis with 1.5 designation strips

Using ADC's patent-pending eschutcheon kit, the one rack unit panel can be converted to a 1.5 rack space configuration. This allows the use of ADC's ultralarge designation strips; providing room for three lines of text—the largest designations on the market.

This conveys what is meant by "The access panel 110 uses bantam jacks and 25 pair connectors mounted to a printed circuit board to achieve a very high density in a small space" – col. 5, lines 17 to 19 of Swam. Clearly, this is a custom solution requiring jumper or patch cables and involves providing new equipment for introduction into the system. As explained in the present application, when referring to Fig. 2, to achieve such a solution, the existing equipment is modified by disconnecting the combined signal and transferring it to the metal port, such that subsequently, and using another cable, it is reconnected to the MDF. This problem is also present in the architecture of Swam.

The subject matter of claim 1 has advantages with respect to the architecture of Swam. First of all, when upgrading an existing installation, no extra cable, bantam jack

connectors and extra labor costs for these items, extra down time of the system etc. are required. Secondly, with respect to the alternative of inserting the metal access block into the intermediate distribution frame, the IDF contains connectors to both the voice lines (received directly from horizontal frame 14) and to the combined signal (received because of the loop back from the splitter/DSLAM assembly 3, 4). This allows a metal port connection to both types of signal, individually. In Swam, only access to the combined signals from the vertical distribution frame is possible.

With respect to the vertical frame alternative, this provides a more economical use or reuse of installed equipment than that proposed by Swam.

It is clear that the inventors of Swam were aware of an IDF (see Fig. 9 – “IDF-like”) but did not think of using it. As indicated in the present application main, intermediate and vertical distribution frames are well known to the skilled person. The skilled person reading Swam would therefore not be lead to consider the solution as now claimed.

For at least the reasons discussed above, Applicant submits that claim 1 is patentable over the cited art. Claims 17 and 18 are allowable for the at least the same reasons as discussed with respect to claim 1.

Claims 2-5, 7-16 and 19-20 depend from claim 1 and are patentable at least per the patentability of claim 1. In addition, certain dependent claims are separately patentable at least for the reasons that follow.

Claims 12, 14 and 19 are separately patentable.

In addition to the reasons for patentability discussed with respect to claim 1, claims 12, 14 and 19 are separately patentable at least for the reasons that follow.

As discussed with respect to claim 1, Swam does not have an intermediate frame; therefore, Swam can also not have a metal access terminal block disposed on the terminal of the intermediate distributor as recited in claim 12. Hence, claim 12 is not anticipated by Swam.

With reference to claim 14, Swam shows the access panel being outside the MDF and therefore not being located in or at the vertical distribution frame. Therefore Swam does not show a metal port on the terminal block the vertical distribution frame as recited in claim 14.

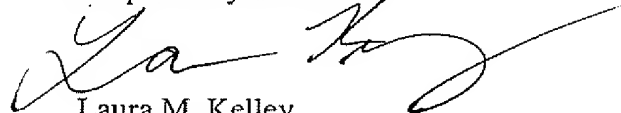
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Filed: August 23, 2004
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Moreover, with respect to claims 12 and 14, by using a block that is insertable into existing distribution frame terminal blocks, a particularly economical solution is obtained. The solution of Swam requires special equipment such as bantam jacks to provide an access panel. The basic concept behind Swam is not to reuse existing equipment in telephone exchanges but rather to provide new equipment despite the additional labor costs and down time. The Action suggests that Smokel would suggest to the skilled person an insertable test plug into an intermediate or vertical distribution frame. Smokel relates to a splitter assembly, i.e. remote from the vertical or intermediate distribution frame. Also none of the boards for insertion in the device has a test access for remote test. Inserting the boards from Smokel into the access panel of Swam does not result in the subject matter of the present claims because the boards of Smokel do not have a remote test access point on them.

Claim 19 is separately patentable for at least the same reasons as discussed with respect to claims 12 and 14. In addition, a cartridge such as claimed in claim 19 is also not disclosed in Swam. Swam provides little information as to the way the remote test access is to be connected.

For at least the reasons discussed above, Applicant submits that the current claims are in condition for allowance, which action is respectfully requested.

Respectfully submitted,

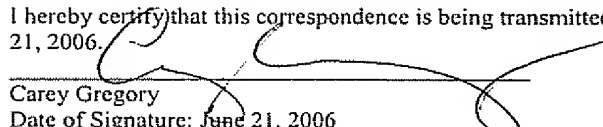


Laura M. Kelley
Registration No. 48,441

Customer No. 20792
Myers Bigel Sibley & Sajovec
P. O. Box 37428
Raleigh, North Carolina 27627
Telephone: (919) 854-1400
Facsimile: (919) 854-1401

CERTIFICATION OF TRANSMISSION

I hereby certify that this correspondence is being transmitted electronically to the U.S. Patent and Trademark Office on June 21, 2006.



Carey Gregory
Date of Signature: June 21, 2006